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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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SMITH, GAMBRELL & RUSSELL, LLP
1850 M Street, N.W., Suite 800
Washington, DC 20036

EXAMINER

PERRIN, JOSEPH L

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,106

Applicant(s)

EGASHIRA ET AL.

Examiner

Joseph L. Perrin, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18, 21, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 18 is/are allowed.
- 6) ☒ Claim(s) 9, 10, 12-17, 21, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20060526
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Amendment, filed 22 March 2006, with respect to the rejection(s) of claim(s) 18 under 102/103 in view of THOMPSON have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made as indicated below.

2. The indicated allowability of claims 9-10, 12-17, 21 & 24-25 is withdrawn in view of the newly discovered reference(s) to CHRISTENSON and SHORTES. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 9-10, 12-13, 15, 17, 21 & 24-25 rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,274,506 to CHRISTENSON *et al.* (hereinafter "CHRISTENSON"). CHRISTENSON discloses a liquid processing apparatus

(10/110/210/310) comprising a processing container forming a chamber, a rotatable substrate holder, plural nozzles arranged to spray processing liquid toward the center of the substrates. See particularly Figures 3-5 and relative associated text.

CHRISTENSON also discloses the nozzles may be fan-shaped (rectangular) which is readable on spraying in a "plane" (col. 8, line 23) and inclined (for instance, Figure 2).

The Examiner notes that the intended use of spraying in a diameter or radius of the article to be worked upon is considered intended use and afforded little patentable weight since such use is wholly dependent on the variable size of the article being worked upon. MPEP 2115 and caselaw is replete with teachings disclosing that expressions relating an apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Accordingly, recitation of the apparatus of CHRISTENSON reads on applicant's claimed invention.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over CHRISTENSON. Recitation of CHRISTENSON is repeated here from above.

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disclose the nozzles being arranged such that they are separate from each other in the circumferential direction of the substrates to be processed. However, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the nozzles in either configuration discussed above, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Alternatively, the position is taken that it would have been within the level and knowledge of one having ordinary skill in the art at the time the invention was made to provide additional nozzles in the processing container in the circumferential direction of the substrates since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8; *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over CHRISTENSON in view of THOMPSON '419 (previously cited). Recitation of CHRISTENSON is repeated here from above. CHRISTENSON discloses the claimed invention with the exception of the container having an inner face inclination angle. THOMPSON '419 teaches that it is known to provide a substrate processing container at an angle "to assist in effluent drainage" of the container (see Figures and col. 2, line 3 *et seq.*). Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the container of

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CHRISTENSON to angle or incline the container, as disclosed in THOMPSON '419, in order to provide more effluent drainage of the liquid processing apparatus.

Allowable Subject Matter

8. Claims 11 and 18 are allowed.

Conclusion

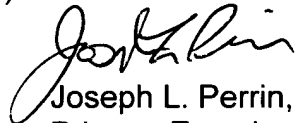
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,027,686 to SHORTES *et al.* which evidences fan-shaped nozzles spray in a plane and the known concept of applying processing fluid at the center and across a rotatable semiconductor substrate.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1746

jlp